



CMFRI

2007

DIAMOND JUBILEE YEAR

Down memory lane

**CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
KOCHI**



**A Diamond Jubilee
Publication**

Down memory lane

**Central
Marine
Fisheries
Research
Institute**



(Indian Council of Agricultural Research)
Kochi - 682 018, Kerala, India





Down memory lane

Compiled and Edited by :

Dr. Mohan Joseph Modayil

Dr. C. Ramachandran

N. R. Letha Devi

Assistance :

P. S. Anil Kumar

N. K. Harshan

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Director, Central Marine Fisheries Research Institute, Kochi-18

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From the Director's desk



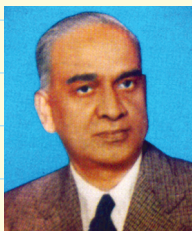
**Mohan Joseph
Modayil**

This is a tribute to all of you, the elders, who served CMFRI in various capacities in the past 60 years to make this institution a standing testimony to the devotion and dedication of the numerous scientists, technical and administrative staff who made this institution stand apart and shine amidst the best marine fisheries institutions in the world. Hats off to each one of you for what you have done for CMFRI, the fruits of which are here to stay. My personal gratitude to all of you for all the support and encouragement you have been giving me in the past seven years and I will always cherish the time I spent in CMFRI, contributing my small mite to the development of this premier institution. I had requested several of our former colleagues to write a few words about their memories in CMFRI. Many responded promptly, a few thought it was not worth writing. I thank you all for putting in so few words so much of feelings and emotions which truly reflect what CMFRI means to each one of you. And let me assure you all that each one of you mean so much for each one of us passing through the corridors of this great institution, reminding us that there are miles to go before we sleep, miles to go before we sleep. Thank you all.

Mohan Joseph Modayil.

October, 2007

OUR FORMER DIRECTORS



Dr. H.S. Rao
(1947-1950)



Dr. N.K. Panikkar
(1950-1957)



Dr. S. Jones
(1957-1970)



Dr. S.Z. Qasim
(1971-1974)



Dr. E.G. Silas
(1975-1985)



Dr. P.S.B.R. James
(1985-1994)



Dr. M. Devaraj
(1995-1999)



Dr. V. N. Pillai
(1999-2000)

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Dr. E. G. Silas

- Designation at retirement : Director
- Period of service : 1963-1985

Down memory lane

After a certain age, reminiscences become a way of life, looking back at events of the past and one's contributions towards betterment of societal concerns. Such recollections, when positive, give great joy, happiness and satisfaction. By God's Grace, my life is filled with such reminiscences and the one I intend saying has something to do about my nearly sixty years association with the CMFRI, which I first visited at Mandapam Camp in 1948 as a graduate student of Madras Christian College led by Late Prof. J. P. Joshua, when a young, handsome aristocrat named Raghu Prasad, gave us a pep talk about Marine Sciences. Least did I think at that time, that I would later have a "life-time" association with the Institution.

Almost sixty years of close association with the Institution enables me to look back with great joy, pride and pleasure at some of the events which I was instrumental in developing in marine capture fisheries and coastal aquaculture (Mariculture) taking them to new heights through

creative and innovative programmes of national and international importance. One such event, which I intend to recount here, is the establishment of the Centre of Advanced Studies in Mariculture at the Institute in 1979 under the auspices of the UNDP/FAO/ICAR for developing highly skilled manpower in the areas of mariculture research, research management, training and extension. I will consider this as a milestone, a turning point in the development of marine fisheries research in the country. It was not easy sailing, as the establishment of a Fisheries Sub-Project of the ICAR/UNDP Project on "Post-Graduate Agricultural Education and Research" was hotly contested with all odds heavily weighted towards CIFRI, Barrackpore bagging the project. I recollect with gratitude the moral support and encouragement I received from Late Dr. Raghu Prasad, Assistant Director General (Fisheries), ICAR. Dr. Prasad and I had to meet the UNDP/ICAR Commission at Bangalore as I had to justify the need for starting a Centre of Advanced Studies in Mariculture (CASM) at CMFRI to catalyze research and higher education in mariculture leading to M.Sc. (Mariculture) and Ph.D., aimed at ultimately augmenting fish production in the country through innovative mariculture programmes. After the meeting, when Dr. Stevenson representing the UNDP congratulated me on my concern for mariculture HRD, I knew that we had made it. It was a God given gift to me that I had a person of the stature and capability of Dr. P. Vedavyasa Rao to help in the running of

the programme and Mr. M. J. John to assist in the administration - both deserving to be called as Vice- Chancellor and Registrar!

From a total commitment to capture fisheries to a partial shift to mariculture as well as taking up research guidance and teaching in subject areas such as physiology, nutrition, pathology, genetics, aquaculture engineering and so on was not an easy task. But the enthusiastic involvement of all those concerned with out decent was a great achievement in our endeavor to make the course a success. Even this would have been fruitless, since at that time, statutorily no Agricultural University could affiliate such academic courses conducted in Fisheries Research Institutes for the award of Degrees. When I explained my predicament to Dr. M. V. Pylee, the then Vice- Chancellor of the Cochin University of Science and Technology (CUSAT), he with out any reservations and with open arms welcomed and approved the course to be affiliated to CUSAT for conduct of examination and award of Degrees of M. Sc. (Mariculture) and Ph. D. This was a great blessing, though I had to bear the barbs of Dr. O. P. Gautam, DG, ICAR at meetings in Delhi for my establishing affiliation of the CAS with an academic University!

The success of the course became a major obsession to some in the ICAR which despite my submissions did not wish to accord CMFRI a Deemed to be University status in the field of Fisheries as it had done earlier for Agriculture, Veterinary and Animal sciences (IARI, IVRI,

NDRI). The status quo was continued until I left CMFRI after a ten-year tenure as Director in June 1985. From then onwards, I understand that CASM was gradually allowed to disintegrate to oblivion. With the present leadership of CMFRI and the infrastructure facilities the Institute has developed, it is not too late to reconsider bestowing it the status of a Deemed to be University - a fitting recognition for its 60 years yeomen service to the nation.

The great thing about the CAS in Mariculture was the benefit the staff and the students had from the programme in improving their skills; the staff, as nearly 35 had the advantage of visits to foreign laboratories to work with experts from three to six months and to work as counterparts, for over a dozen experts who were invited by me to come and spend a month or two with the CAS and also prepare manuals and conduct workshops on the area of their specialization. These manuals published in the Special Publication Series of CMFRI had become an important and useful source of reference to students of aquaculture as well as aquaculturists. The CAS in Mariculture had an uniqueness and identity of its own. The products of the course were in great demand in the growing shrimp farming industry as well as in the research and management sectors such as banks, universities and research institutions in the country. I feel proud that almost all the students who have passed out are today holding high and responsible positions in the walks of life they have chosen. Down

the memory lane, I share the feelings of all those who unanimously and with total commitment, whether scientific, technical or supporting, helped in this great national effort to bring about a sea change in the development of marine fisheries to make it to also address societal concerns as well as the needs of the industry, research institutions and SAU Colleges of Fisheries; and reorient and upgrade the skills of teachers and students to be achievers. This to me has meant a lot and gives me immense satisfaction to look back on.



Dr. P.S.B.R. James

- Designation at retirement : Director
- Period of Service: 1961-69; 1978-82; 1985-94

A nostalgic journey

I am extremely proud and greatly cherish the memory of being a product of CMFRI, having started my professional career as a Senior Research Scholar of the Govt. of India (1958-61) for research in marine fisheries at Mandapam Camp and culminating as the Director of the Institute (1985-94).

My desire to pursue for the Ph.D. degree twice earlier at the Indian Lac Research Institute, Ranchi (1956) and at the University of Delhi (1958) could not be fulfilled as the facilities and the environs there did not convince me. Moving to Mandapam Camp from Delhi was termed a 'banishment' by my supervisor, late Dr. Mary Chandu, Reader at the Delhi University but it proved to be a boon as I instantaneously felt it the ideal place for research on fish, my long cherished goal.

It was a nostalgic journey to reminisce from Madras-Egmore to Mandapam Camp by the then boat-mail. The golden moments virtually

commenced as I crossed Uchappuli station and headed towards Mandapam Camp. The enchanting view of the Palk Bay, the adjacent crystal clear turquoise lagoons and the distant Gulf of Mannar with the chain of islands thrilled me beyond imagination. As I entered the CMFRI campus the canopy on either side of the road and the serenity and the tranquility of the place and its very location at closed doors to the sea impressed me most to finally settle down for serious work.

An absolute novice to marine sciences, it was the renowned and illustrious Dr. S. Jones the then Director who initiated me to research in marine fisheries and under whose guidance I received the Ph.D. degree of the Banaras Hindu University in the year 1964 for research on ribbon fishes. It was a thrilling and signal moment when I also received the D.Sc. degree from the same University in 1986 based on my published work at the Institute on some marine fishes of India.

My stay at the celebrated Mandapam Camp from 1958 to 1969 and again from 1978 to 1982, though a sort of vanavvasam, offered note-worthy and unlimited opportunities, inspiration and motivation to explore the extraordinarily diverse marine ecosystems and aquatic habitats, the varied fisheries resources and methods of exploitation and the fascinating lagoons and islands. I am yet to come across an equally famous place excelling it for marine science research in the country - indeed it is a place for research from 'diatoms to whales'! If I am anything to-day, I owe it to my research

work at this unique place.

My first golden and notable moment at CMFRI was the reporting on the occurrence of a fourth species of ribbon-fish, *Eupleurogrammus intermedius* as early as in 1959. This was followed by the detection of two additional species of silverbellies, *Leiognathus leuciscus* and *L. smithursti*, and the discovery and description of two new species, *L. jonesi* and *L. striatus*, all from the Palk Bay and the Gulf of Mannar region. However, I narrowly missed the bus, for unexplainable reasons, to describe two new species of ribbon-fishes from India although I possessed the requisite material, which were duly described later by others. My extensive and exhaustive publications on these two families of fishes gives me a deep sense of satisfaction, contentment and professional achievement.

During my stay at Mandapam Camp, I had memorable and breath taking encounters with schools of fishes, I used to enthuse about. The cow-nose rays, catfishes and mullets were at times captured in enormous quantities in shore-seines and purse-seines and the skipjack tuna during pole and line fishing in Lakshadweep. The occurrence of large fishes like devil rays (*Manta* sp.), the tiger shark, hammer-heads, saw-fishes, leather-jackets (*Chorinemus lysan*), the eels (*Thyrsoidea macrura*) and the live sea snakes in the region cannot be forgotten. My personal efforts to enrich the museum with diverse flora and fauna were a pleasant experience to recollect.

The remarkable perambulations along the coasts of Palk Bay and the Gulf of Mannar, the night observations and collections at Kundugal Point, the surveys and marine biological collections at zero-tides and post-cyclone (1964) period, camping on the Manauli island over-night for field observations including tide-related shore fishing activities, the unearthing of the deep rooted large sea-anemones (Stoichactis) with anemone fishes, the Sunday - morning (6-10 AM) swimming, diving, snorkeling, fishing and making field collections of benthic fauna including in-situ observations on commensal/symbiotic animals, the encounters with large shoreward drifting medusae capable of causing severe rashes with toxic tentacles (self a victim once) in the Palk Bay during north-east monsoon period, the identification for the first time of the blue-green alga, Trichodesmium thiebanti invading the coastal waters of the Gulf of Mannar in dense blooms and causing foul smell and fish mortalities in the aquarium, participating in day-long trawling and purse-seining by Indo-Norwegian Project boats and Karavalai (shore-seine) fishing boats, pole and line fishing for skipjack and night angling in rocky reefs of Bangaram island in Lakshadweep, early morning (4-6 AM) fish sample collection from bagnets operated from catamarans at Thangachimadam, soonthu (burning dry coconut leaf bundles at night) fishing at Rameswaram for white-bait and accidental injuries and pain caused to individuals by the sting of rays and the dorsal spine of large catfish remain memorial.

Dealing with large marine mammals like the dugong (live and dead) and the stranded sperm and baleen whales (24 to 80 ft) along the Palk Bay and Gulf of Mannar coasts and studying them for various aspects, especially re-assembling of their skeletons was a singular experience.

My efforts in various capacities while in CMFRI and at the Council to get a Kendriya Vidyalaya established in the premises of CMFRI Mandapam Camp for the welfare of staff in particular and the community at large in a remote and backward locality often reverberate in my mind.

Besides several national and international seminars, workshops, symposia and training courses held in CMFRI, the FAO workshop on field identification of fishes of the western Indian Ocean at Cochin and the international training course in pearl culture at Tuticorin under the FAO/UNDP Seafarming Development and Demonstration Project were significant.

The successful implementation of the transfer of technology programmes in mariculture on the establishment of a prawn hatchery at Kannur, the oyster mela at Tuticorin, pearl festival and polyculture at Valinokkam, clam and oyster culture in the backwaters of Kerala, Mahima shrimp feed production and empowerment of women at Chellanam, seaweed culture by women at Rameswaram, seacucumber seed production and hatchery at Tuticorin will remain as memorable milestones.

Lastly, the distinguished and hardworking exercises by the scientists

and technical staff of CMFRI for the survey of fisheries resources of the Lakshadweep, documenting for the first time the status of marine fisheries in various States, analyzing the implications of monsoon fishing along the west coast, assessing the stocks of over 40 species and groups of fishes and the publication of the first bibliography of publications of staff of CMFRI have left deep, important and indelible impressions on me.



Dr. M. Devaraj

- Period of Service: 1995-1999
- Designation at retirement : Director

My best memories in CMFRI

1. Some time in 1969, going through my manuscript on *Scomberomorus koreanus*, an elderly British scientist (he was a conchologist, his name I forgot) camping at Mandapam Camp, told me that one day I would become the Director of CMFRI. I was happy that he was impressed with the depth and quality of my research paper.

2. My work on fish population dynamics during 1967 -78 in CMFRI has been personally so very satisfying and gave me a sense of fulfillment. Mastery over this difficult subject gave me the will and determination to succeed in life. It is this determination that still sustains my physical and spiritual strength in my post retirement pursuit of organic farming in my own farm of about 15 acres in one of the most beautiful locations at the tip of the western ghat.

3. The self confidence I gained in CMFRI during 1967 - 78 took me to positions like Joint Director of CIFE Mumbai and Dean, Fisheries College

& Tesearch Institute, Tuticorin, and ultimately Director, CMFRI Cochin during 1995 - 99. Again, the first rank I earned in my M.Sc in the London School of Economics in 1979 - 80, I owe to my training in CMFRI.

4. As Director CMFRI, I enjoyed every movement of my life and associations with all my colleagues and friends in CMFRI. They all worked like honeybees to build excellent pieces of infrastructure at Calicut, Cochin, Vizhinjam, Tuticorin, Mandapam, Chennai and Vizakhapatnam. What a wonderful talent CMFRI has. Although I miss them, they are all in my hearts; I have many hearts, one each for everyone of them.

5. When I rose up and spoke for funds for acquisition of land in front of CMFRI headquarters from CMDA, costing about Rs.12 crore, in one of the Directors' conferences at ICAR, New Delhi, I was ridiculed by some, but Dr, R.S. Paroda, the DG allotted initially about Rs. 372 Lakhs and the money was transferred to our office. When we were about to remit the money to the CMDA, Dr. Paroda was forced to withdraw this money back by some miscreants. For a moment I sat crestfallen . What happened to that land is there for everyone to see. We had a big mariculture infrastructure plan for this land.

6. As a research scholar, research assistant, scientist and Director in CMFRI, I gained a lot and lost nothing - my beloved colleagues and friends - foes none. I left a good legacy. I owe everything I have in my life to god almighty and the CMFRI, and the CIFE, and the FCRI, and my family.



Dr.V.Narayana Pillai

- Period of Service in CMFRI : 1985-2000
- Designation at retirement : Director, CMFRI, Kochi

A few golden moments

There were several Golden moments to be remembered during my tenure of 16 years in CMFRI. I consider it as a great privilege and honour to have been given the opportunity of serving CMFRI for a major part of my official career and finally to be elevated to the rank of Director.

In fact every symposium, seminar, visit of Hon'ble Ministers, Hon'ble Members of Parliament committees and other dignitaries to the Institute provided the golden moments of joy and happiness to the staff members in view of the appreciation of the work done by the Institute expressed by these dignitaries from time to time. In fact it was the unity among the staff and the support extended from their side which provided the Institute with fame and glory.

When I joined CMFRI as Scientist S-3 in the Fishery Environment Management Division of the Institute in the year 1985, the HQ at Cochin was functioning at different rented premises. Consequent on completion

of Institute's own building behind Kerala High Court in February, 1986, the new facility was inaugurated by the then Hon'ble Minister for Agriculture, Govt. of India, Shri. Bhuta Singh in the presence of Shri. K. Karunakaran the then Chief Minister of Kerala and other dignitaries during end of February, 1986. This was perhaps the most important golden moment I could remember.

The occasion also remembered the effort put in by the former Directors of CMFRI (Late Dr. N. K. Panikkar, Late Dr. S. Jones, Dr. S. Z. Qasim and Dr. E. G. Silas) who fulfilled the desire of the marine fishery research community of the country to have a centralized national research facility for marine fisheries research and education, covering both capture and culture aspects. Through the efforts put in by these eminent personalities and senior marine fishery scientists who managed the Institute as Directors since 1986, the CMFRI has grown into the largest marine fisheries research facility in the country.

I am unable to give expressions to many many golden moments I have witnessed in CMFRI between 1985 and 2000 in a few words. The tenure of 16 years which I have spent in CMFRI was most memorable. To be honest, I have really enjoyed my tenure in CMFRI in different capacities till my retirement as Director in the year 2000 with the full support of different categories of staff at HQ and Regional/Research Centres.



Prof. M. Umamaheswara Rao

- Designation while leaving CMFRI : Assistant Fishery Scientist
- Period of Service in CMFRI : 1964 - 1973

Memories in my life

I consider that my stay in CMFRI, Mandapam, for 9 years, is the golden moment in my life, because I was actively engaged in seaweed research at that time and this gave me an opportunity to get a thorough knowledge of seaweed flora of Tamilnadu and also India. Autecological investigations on agarophytes and alginophytes, survey of economically valuable seaweeds of Tamilnadu and pioneering experiments on cultivation of *Gracilaria edulis* are the major contributions during the period of my stay at Mandapam, which paved the way for the development of seaweed Industry in the Country.

Myself and my family members cannot forget the days spent in Mandapam - an isolated place. I still remember vividly how we lived and how we worked on various aspects of Marine Phycology in the shallow coral reef habitats of Gulf of Mannar - an important seaweed growing area of our country.



Dr. P.V. Ramachandran Nair

- Designation at retirement : Principal Scientist, Head of Fishery Environment Management Division and Joint Director
- Period of Service: 1956-1986

My tributes

I would begin by expressing my gratitude to Dr. Mohan Joseph Modayil, Director, CMFRI and some senior colleagues for giving me the opportunity to share my golden moments at CMFRI.

Joined as Research Assistant in 1956 in the Marine Biology & Oceanography Division of CMFRI at Mandapam, the then Headquarters with Dr. N.K. Panikkar as Director and Dr. R. Reghu Prasad as Head of Division to do the primary productivity studies in Arabian Sea and Bay of Bengal. I pay my homage to them because I owe a great deal to both of them as they were responsible for shaping my career giving right directions to my earlier research pursuits.

Introduction of radioisotope in productivity studies, marine pollution, remote sensing and guiding of a dozen people for Ph.D. were the highlights of my work. Dr. Jones and Dr. E.G. Silas as Directors aroused the potential in me for the development of the Institute. I was sent abroad to Denmark

for Marine Science and Sweden for Marine Pollution studies. I retired from the new building the inauguration of which was the climax of my career. The vote of thanks was given by me to all who was responsible for making this possible. The main architect of that achievement, Dr. E.G. Silas was sadly missing.

A Mobile Laboratory first of its kind in India in the field of marine fisheries research has been commissioned for the Central Marine Fisheries Research Institute, Cochin by Dr. Martha Vanucci mainly to carry out field-oriented investigations aimed at monitoring water quality and other environmental parameters in the aquaculture system. On the spot studies carried out in this mobile laboratory was helpful in evaluating economic feasibility of culture operations, soil conditions of the farms, seepage and engineering aspects of fish farms and similar problems. The scientists will be able to carry out quick analysis of samples collected for different investigations and come out with immediate results. The commissioning of the laboratory has considerable significance in the research and development on mariculture in the coastal areas. The laboratory was also in making 24 hr observations of ecological conditions of mud banks, estuaries, mangrove ecosystem and similar areas.

I had some very good colleagues and Personal Assistants. Dr. K.J. Joseph, Dr. V.K. Pillai, Dr. C.P. Gopinathan, Dr. V. Chandrika, Dr. K.J. Mathew (Lab-to-Land Programme), Shri V.K. Balachandran and Shri A.

Nandakumar (Technical Officers) and Personal Assistants, Smt. N.R. Letha Devi, Smt. A.K. Omana, Smt. N. Ambika. I thank all of them.

I retired as Principal Scientist, Head of Fishery Environment and Management Division and Joint Director in July 1986.

I would like to add it must be kept in mind that it is because of the work and dedication of persons like Dr. N.K. Panikkar, Dr. Jones, and Dr. S.Z. Qasim we have made such noteworthy advances in the ocean sector. I have no doubt that those who are involved in the growth and development and promotion of ocean science will continue to fulfill their dreams and expectations.

My thirty years in CMFRI was my golden period and if I have another rebirth I would still like to be part of this wonderful Institution, made more modern by the present Director, Prof. (Dr.) Mohan Joseph Modayil.



K. Nagappan Nayar

- Designation at retirement : Principal Scientist
- Period of Service : 1952 - 1987

Pearls to remember

It was in late 1958, while I was working as an Assistant Research Officer (Molluscs) at the Madras Research Centre of CMFRI, that I got an official letter from the Chief Research Officer, CMFRS, Mandapam Camp, asking me to proceed on tour to Tuticorin at a very early date. It was to join Dr. Salvadori, an F.A.O. Fishery Scientist who had specialized in SCUBA (Self contained underwater breathing apparatus) diving as an understudy. The pearl oyster fishery off the coast of Tuticorin had become very erratic and for a number of years no fishery was possible due to the unproductive nature of the pearl oyster beds. Hence the Central Government requested the Food and Agricultural Organisation at Rome to depute a fishery scientist who was well versed in SCUBA diving to Tuticorin for a few months to dive and study the actual status of the pearl oyster beds and their distribution and also to train personnel for SCUBA diving. As the pearl oysters in the State was under the jurisdiction

of the Tamilnadu Fisheries, Dr. Salvadori was sent to Tuticorin with instructions to the Asst. Director of Fisheries, to look after his accommodation and other facilities for carrying out underwater explorations. The work assigned to me was to work as an understudy to him in all his underwater studies. This work involved carrying out extensive underwater diving operations using SCUBA diving to study the distribution pattern of pearl oysters, its density and its populations in the pearl banks which are mainly located in the Gulf of Mannar off Tuticorin at about 15-25 km away from the shore.

Earlier only the Indian Navy had a team of SCUBA divers to carry out their underwater work. Some of my colleagues persuaded me not to get involved in this hazardous and dangerous type of work. I was able to lay my hands on a few underwater books and read and understood about SCUBA diving. I seriously thought about this type of work which was carried out extensively in different parts of the world, I decided to accept the offer and take up this challenging assignment. I immediately proceeded to Tuticorin and joined there to carry out this project.

At that time there was only one counterpart from the State Government. In addition to the two of us, Dr. Salvadori requested the State Government to spare the regular skin divers working in the Department also to undergo the SCUBA diving training. All the formalities were completed within a few days time and the expert started the

underwater diving training work for all of us in the open sea. Within a couple of weeks, all of us learnt SCUBA diving. Diving in the open sea was a fascinating experience. When I reached the sea bottom to a depth of about 20 m I found a variety of marine life all around me. The number of different types of small beautifully coloured fishes all around me and the number of live corals with their polyps fully opened surrounded with numerous fishes was beautiful. With great delight we caught lobsters and brought them up. I was able to photograph the underwater animals with the latest underwater cameras. I felt I was altogether in a fascinating work and enjoyed the experience tremendously. On alternate days we set sail in the early morning and reached the diving station for the day's work, usually more than 20 m off the shore. We returned back after the diving session invariably between 3 pm and 4 pm. Initially two of us used to dive at one single place and thus we started the survey operations. After a couple of months experience, we all started diving independently at different stations. In the meanwhile a few more counterparts from the State and also from the Centre joined the team and started their training.

Dr. Salvadori's initial assignment was for a period of three months, but before the period was over his assignment was extended for a further period of three months. I was also given to understand orally in the beginning of the assignment itself that after the expert left India, I would be sent back to Madras. When Dr. Salvadori left Tuticorin after completion

of his assignment, I got an office order stating that a new Centre is to be started at Tuticorin and I had been posted as the Officer-in-Charge of that Centre. This came to me as a rude shock, since I was anxiously waiting at that time to go back to Madras. This office order posting me at Tuticorin continued for a period of over two and a half decades of my life ! This however enabled me to work without interruption on pearl oysters and edible oysters.



S. Mahadevan

- Designation at retirement : Principal Scientist
- Period of service: 1953-1988

Just a few lines from my memory

Gulf of Mannar, My Friend

A sliver stream pass the waters offshore

gilt with sunbeam all over

on whose enamelled waters I dived

and saw how prettily the denizens moved and lived

and how sweetly they moved and bred still

Oh! my friend Mannar gulf

still I adore you

though eighteen years past since I bade thee good-bye

*Marine Zoology, Mandapam Camp, Mannar Gulf and Mahadevan
Place-New Delhi, event UPSC selection in 1959 for Marine Zoologist
post in CMFRI-*

*I was leaving the hall after interview. An attendant emerging from
the chamber calls out my name "Chairman saab aapko bulathe hain"*

Apprehensively I enter the chamber. "Be seated Mr. Mahadevan the chairman tells me smilingly. 'Your reply about the unsuitability of Pulicot lake bed for Coral reef formation is correct. You can go'.

That was a defining moment. I knew instinctively that it was Dr.N.K.Panikkar, a member of the Board who must have corrected the assertion by the chairman who believed that Pulicot Lake bottom is a coral reef environment. I cast my grateful eyes on him before I left.

Defining Moment

Mandapam Camp. Dr. Panikkar's visit. What is Mahadevan doing here? he queried Dr. S.Jones Director CMFRI then. He is meant for underwater diving assignment under UNDP/ FAO scheme by learning Aqua-lung diving at Tuticorin. Transfer him". That was a defining moment. In the next two decades CMFRI became a pioneering organization in India in underwater studies.

We were the first that ever burst into the silent sea' to study the ecology of pearl oyster and chank beds. I reproduce here what 'Indian express' reported on 10.12.1972 about our work.

"At Tuticorin I met two institute scientists who form India's only scientific diving team. Mr.K.Nagappan Nayar and Mr.S.Mahadevan have led a tweedledom tweedledee existence passing out of the same college, gravitating to the same organization and learning diving at the same time from a visiting Italian expert in 1959. Ever since the two have been

regularly donning aqualungs to study inch by inch the topography and the forms off Tuticorin. They have discovered and charted rocky banks or 'Paars' where oysters abound". This encomium is more for the institute than for us. A language daily from Calicut also extolled our exploits in its columns in 1972. Such Memorable events in my career were many but I restrict them to a few.

'Tornado' in Mannar gulf

During 70's we were surveying the near inshore sea-bottom on a cloudy, murky afternoon. Anthony Pichai and Susai were doing sample collection at the bottom with 'M.L.Chippi' anchored. One Mr. Salihoo from Sudan was witnessing our diving work. All of a sudden our rock pilot Pitchaiah Fdo. shouted "Thumbikkai, Thumbikkai varudu", start the launch and run it westward." He pointed out far south of where we lay. To own consternation we noticed a deathly dance performed by a swirling dark, broad column of cloud in the shape of an elephant' trunk descending from over-hanging cloud mass connecting sea surface, twirling, churning and sucking seawater up and along with it fishes, small and large, weeds and what not and flinging them in to bits far off from the centre Tornado! a rare phenomenon. The gurgling noise was terrific and the worst! it was moving fast north in our direction! we could not heave anchor and run shorewards. Staff were working at the sea bottom! 200 metres separated us from certain catostrophy; The crew started prayers. As if in answer, miraculously the Tornado changed

tack moving East Northeast and dissipated sparing all of us underwater eternity!

Charming 'Poisonous Sea-Snake'

The most daring and dangerous attempt by me was during the visit of a German scientist (I forget his name), accompanying him diving, photographing deadly sea-snakes underwater at close range! I was very reluctant at first but yielded later. Attempts in diving at 10 fathoms drew blank. We were third time lucky (really lucky I, returned ashore alive). We encountered snakes in different dives, gracefully, (fearfully too!) swimming towards us, Nearer and nearer! Fear gripped me. The Germans earlier advice to me was if the snake approaches you swim up, breathing steadily. The bubbles from aqualung will be the object of curiosity for the snakes which they will follow, rising up. You dive deeper down. The snake will surface elsewhere. I did it with pounding heart. He had what he wanted. I survived! to write this adventure! Years later he sent a reprint of his publication (in German) Excerpts seeing my name I could not understand what he had written in it.

Escape from 'Saw' of Death

On a murky day April 1976 I was diving solo at 21 meters over a rocky bed, thick with overgrown seaweeds. Landing on the sea bed I experienced a sudden jerk under my flippers. Instantly I noticed a 4' long saw darting forwards. I realised it was on *Pristis cuspidatus* resting on sea

weed bed that I had put my feet wrong. My intruding feet were fortunately on its rear and not on the saw otherwise my companions above would not have seen me again!

I feel proud that our unit did more than studying the ecology of Gulf of Mannar beds. One such was underwater exploratory attempt in Andaman and Nicobar islands. My regret was that the fierce current system in coastal zones of Nancowry, Great Nicobar and Little Andamans which we visited precluded diving even in closeby coastal reefs. Ubiquitous mosquito nuisance also put a premium whether in the Northern islands or far south. On the other hand Survey of the 21 islands in later years in the Gulf of Mannar was rewarding and helped the Government to declare these islands, protected as National Marine Park.

My active participation in seminars, workshops and training programmes organized by the institute at different times was always a source of great satisfaction and achievement. It gave me and with immense pleasure at the encouragement given by the Institute deputing me to Indonesia, U.S.A and U.K.

Reflections

I visited Tuticorin Research Centre last month. As I saw the existing facilities, the centre permanently shifted to our building a great sense of pride and achievement filled my heart. Mr.K.Nagappan Nayar and myself with support from Dr.E.G.Silas the Director then took pains to establish a

mini hatchery laboratory in the early 80's after acquiring the land from the salt department. This campus is now abuzz with the administrative work and research activities there. Well done. My congratulations to the CMFRI on the eve of the diamond jubilee celebration.



K. Alagaraja

- Designation at retirement : Principal Scientist & Head, FRAD
- Period of service: 1956-62; 1976-94

Waves of happenings wafted with breeze

CMFRI has played a significant role in the fisheries development of India. Assessing fish stocks and fishers exploiting them is the major programme. Method for estimating exploited resources is universally acclaimed. Quinquennial census on fishers is a well appreciated hall mark.

To maintain quality of data, periodical surprise inspections were conducted in the field. Zonal meetings were held involving all the Field Staff (FS) to satisfy their technical, official, personal and emotional aspects. Technical doubts in the method of collection and reporting were discussed and clarified. Official problems from the Research Centres (RC) and Headquarters (HQs) were resolved on the spot. Personal problems like transfers were discussed and suitable changes made. Whether it shines or showers FS should be in remote areas without minimum facilities. Their emotional set back was offset by such meetings when all met and aired their views. In one such meeting a colleague expressed his anguish on the

surprise inspection and said it was nothing but policing them. Appreciating his sentiments I enumerated the four aspects to assuage his feelings. Thanks to Dr. M.S. Swaminathan, through ICAR system of assessment for promotion, all sincere FS were given promotions. Those meetings were very educative to me that I ever treasure.

Two training programmes for research and technical staff of CMFRI and other organizations on fish stock assessment and sample surveys, remained as gateways for free exchange of information to improve the programmes. It is interesting to recall a question raised by a participant that when reports from western countries indicated on decline in their catches due to disappearance of heavily exploited stocks, such things are not heard in Indian fisheries in spite of intensive fishing here also. The less fluctuations in our waters, I replied, are due to the nature of major exploited fish stocks, namely their short life span, fast growth, high fecundity and multiple spawning.

During a meeting held in Mumbai, CMFRI and Maharashtra State Fisheries Officials discussed State Fisheries problems. Dignitaries like late Dr. C.V. Kulkarni graced the occasion. Secretary, State Agriculture Department presided. The Secretary listened to the problems and solutions. To improve fish landings, reduction in the intensity of fishing, mesh regulation and controlling trawling were put forth. Appreciating those suggestions the Secretary posed that when fishers did not observe them

what use was there for these suggestions. A moment of silence prompted me to answer as follows:

"When advanced countries such as Japan do not observe UNO's restricted whaling how can we expect indigent illiterate fishers to take up these suggestions? All over the world no Government insists on such regulations to avoid facing the displeasure of fishing communities. It is, however, better to create alternate sources of earning for fishers during fishing holidays." Dr. Kulkarni congratulated me for the timely reply. I cherish this incident even now.

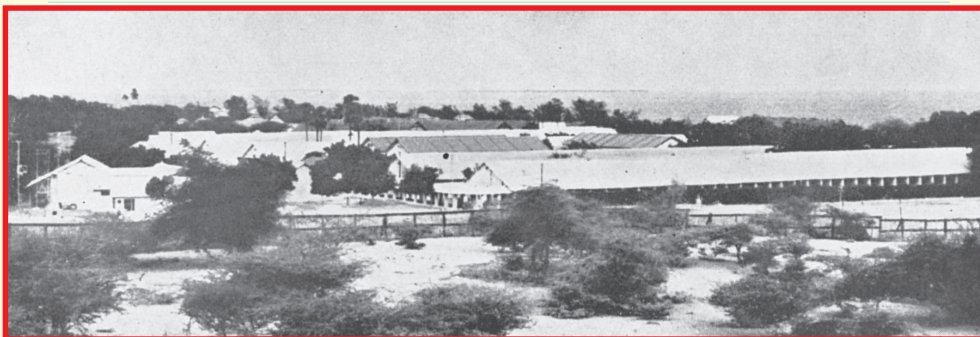
During 1982 and 1986 FAO team for training in fish stock assessment visited CMFRI. It was a turning point in the annals of Indian fisheries when FAO experts were impressed on our contributions in fish stock assessment and included them in their training material.

In a meeting of experts from various institutions and fishers from mechanized sector, organized by the State Bank of India branch, Kollam, I mentioned about the negative impacts of intensive fishing and non observance of mesh regulations particularly in near-shore areas. Suddenly one mechanized boat owner got up and said that I would be shot down for such statements as my remarks would affect their chances of getting SBI loan facilities. Everybody was shocked. Clearing the silence smilingly I replied that "the duty of a scientist is to present the facts for the benefit of not only the present generation but also the generations to come. The

renewability of fishery resources should be respected by all fishers including indigenous ones. Now all fishing sectors feverishly compete with each other to exploit maximum, forgetting that by doing this they are killing the goose laying golden eggs. My suggestions are in the interest of all fishing sectors not aiming at the mechanized sector only". During the tea break that gentleman came forward and profusely offered his apologies to the great relief of all !

To cut short my account due to want of space I conclude with a repartee made on Fisheries Resources Assessment Division otherwise called FRAD. Dr. S.V. Bapat, the then Joint Director saw me coming, jokingly told FRAUD is coming. "Yes, it is true with you (U) Sir. But without you (U) it is not", I said.

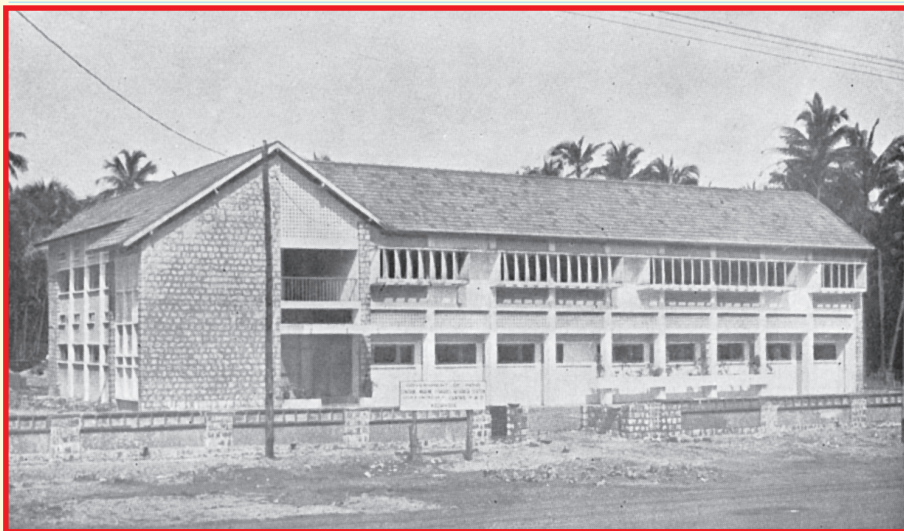
It is very difficult to forget our beloved colleagues who enriched my life. God bless them all.



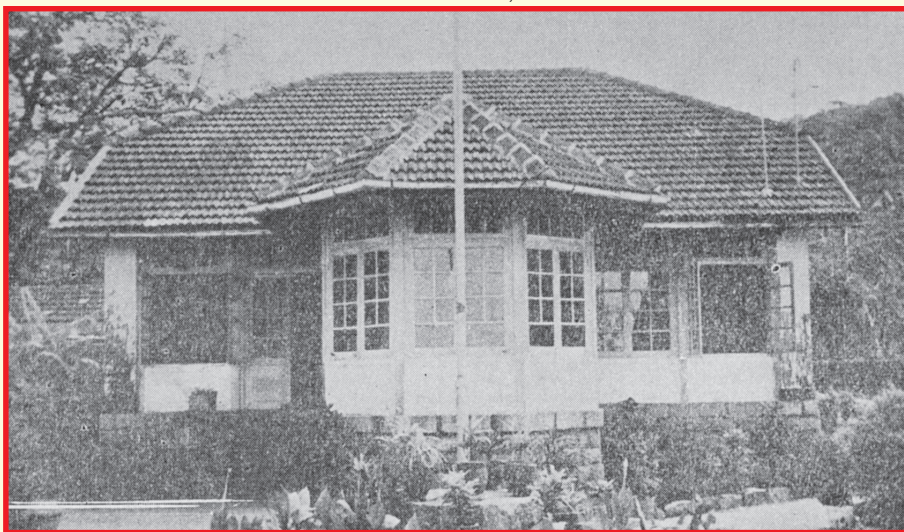
The humble beginnings at Mandapam.... A distant view of the then Headquarters Building of the Central Marine Fisheries Research Station at Mandapam Camp (with the Gulf of Mannar in the background)



New Headquarters at Kochi



CMFRI Sub-station, Calicut



The Institute's substation at Karwar

REGIONAL CENTRES



Mandapam



Visakhapatnam



Veraval

RESEARCH CENTRES

Chennai



Calicut



Mumbai





Karwar



Vizhinjam



Mangalore



Tuticorin



G. Luther

- Designation at retirement : Principal Scientist
- Period of service: 1957-1994

Some events of my research career in CMFRI

What golden moments could be there for a researcher on fish and fishery resources than when he could come out with something new on the resource he was dealing with?

When I joined the CMFRI on 5-8-1957 investigations on grey mullets (Mugilidae) was assigned to me as part of my duties. The shift from the Plankton world to this group was both exciting and strenuous, particularly under the ever inquisitive, exuberant and demanding Dr. S. Jones, the Director of the Institute.

Taxonomic identity of grey mullets with its array of species was both elusive and baffling. As if that was not enough, soon I got stuck up with the true identity of a food item spuriously looking like "Polychaete moults" as found in literature, forming a significant portion of the gut contents of some individuals. After dauntless effort over a long period, a satisfactory

solution emerged based on the habit of the Arctic shark shedding its gill rakers in winter. Shaking vigorously a boiled head of a mullet in a dishful of water, lo! the item that puzzled me till then was there in the dish. This focused light on the habit of "Shedding of gill raker processes in grey mullets [J.M.B.A.I. 1965,6(2)]. It was heartening to note that this finding triggered further investigations in India and elsewhere. Persistence, sure, will yield dividends.

When my studies could establish the little known wolf herring *Chirocentrus nudus* as the most dominant one all along the Indian coast compared with *C. dorab*, then known to be the sole representative of the genus, my joy knew no bounds. Further investigations brought to light the remarkable variations in growth rate, size at maturity, spawning behaviour, etc., between the sexes of both the species, which grow to size of 60-100cm, for the first time.

My report on whitebait anchovies in 1972 brought to light that *Stolephorus devisi*, not *S. heterolobus*, forms one of the two dominant species of the whitebait anchovy fishery in India. This observation, however, found no acceptance by the leading investigators of that time albeit working along the same stretch of the west coast of India till the DANIDA (FAO) Scientists confirmed my contention in 1981.

I was fortunate to have two able scientific associates for investigating the survival capacity of whitebait anchovy species in captivity by cage

culture in the sea (Vizhinjam Bay) as well as in large fibre-glass tanks in the laboratory. Our findings that *S. buccaneeri* (*Encrasicholina punctifer*) and *S. devisi* (*E. devisi*) can withstand captivity for about three and two months respectively was appreciated as a world record at the workshop on 'Tuna Baitfish in the Indo-Pacific Region' held in Honiara, Solomon Islands (Australia) during 11-13 December 1989, to which I was invited to participate.

The lesser sardine (*Sardinella fimbriata*) fishery along the north Andhra coast which lasts for 8-9 months is characterized by early juveniles in the beginning and by sub-adults at the close of the season. This fishery season coincides with the clockwise movement of the surface water mass in the Bay of Bengal. This coincidence suggests movement of *S. fimbriata* away from the Bay waters to spawn elsewhere in the eastern region.

Career wise, well, the initial period was not that memorable, as I had to remain in the same post for over 10 years. At last my career began to look up with my induction to the Agricultural Research Service in 1975, thanks to the ICAR Society and the Director CMFRI. I retired as Principal Scientist in December 1994.

The early period of my research career (1957-62) was spent at the CMFRI Head Quarter at Mandapam camp, which provided an ideal research atmosphere, inculcating in me a sense of discipline, punctuality and hard work. My posting to Port Blair (Andamans) (1962-64) to start a

research centre, and being in-charge of the same enabled me to gain all round experience. Back to Head Quarter, and being associated with the MBAI as an officer bearer in various capacities gave me rich experience in the publication of scientific material.

My visit to the Marine Laboratory, Aberdeen, U.K. during October - November 1977 for Ship Board Training on the Research Vessel EXPLORER under UNESCO Programme and the varied experiences I gained there are unforgettable. The invitation extended to me by the Government of Australia to participate (which I did) in the work shop, referred to earlier is, in effect, an honour to the CMFRI for the quality work being done at the Institute.



P. Vedavyasa Rao

- Designation at retirement : Principal Scientist
- Period of service : 1958-1995

My day of reckoning

CMFRI is a great Institute. It has a remarkable USP. It is also a paradox. Its research contributions and achievements, its excellent and brilliant scientists and technical staff, sincere and honest administrative, supporting and auxiliary staff are occasionally praised, applauded, appreciated and honoured, often blamed, criticized, disliked and sometimes rejected!. But its aesthetic value always remained shining; persons of wider outlook recognized its role and contributions not only to the development of the marine fisheries of the country, but also to the corollary fisheries sectors.

CMFRI is employee, pensioner-friendly. It only could remember lesser mortals like me at this time of gorgeous celebrations of its Diamond Jubilee, but it draws flak when it calls for service period and designation at retirement!

I recall, 17th September, 1958 - the day I joined the CMFRI at the then

Headquarters at Mandapam Camp. On joining, my accommodation was allotted in one of the halls of the then called 'trainees block'. Keeping my sole asset of a steel trunk and a hold-all bedding in a corner of the hall, I hurried to the laboratory, as I was told to be punctual in attendance and not to be late. At that time, I did not bother to look into the facilities available in the hall or its surroundings. I went back to my abode after dinner at about 9 P.M. only then, I realized that it was located in the far end of the long corridor, where it was dark and no light! Soon, to my utter disappointment and misery, I further realized that I might have to spend the entire night in dark, as there was no light in the hall, and that it was possible to get any source of light only in the next morning. Being new, almost a stranger to the place, I did not know to whom to contact and where to go for help. Initially, surging rage, giving way gradually to stark helplessness over took me, and as the night advanced, I reclined to my fate of spending the entire night sleepless in the dark. With the help of match-box stick light, I located the corner of the hall where I kept my trunk and hold-all. Spreading the hold-all, I tried to sleep over, but the eerie sound of the blowing breeze, often getting stronger and making the unbolted windows and doors slap, imaginary visualization of snakes falling from the roof or getting into the hall from outside, and wandering ghosts and ghouls (as the main campus building was originally a hospital) and the loneliness made me not only to keep awake, but also to succumb to

fear and nervous breakdown. This horrible experience, first time in my life, made me to decide to leave the place without informing anybody early next morning, and to resign the job on reaching Alleppey and never to return to this part of the country! Thus making up my mind, I got ready to leave the place, packed up my luggage and was waiting for the boy to carry my luggage to Mandapam side. It was about 7 o' clock in the morning. Lo! At that time, I saw a short gentleman emerging from the other end of the corridor, looking out and searching for something. I was ironically wondering who could that be, and soon, unbelievable, great surprise! I found that the approaching gentleman was none other than Dr. R. Sridharan Pillai who was my senior working as a Research Scholar at the University College, Thiruvananthapuram. My joys knew no bounds, I hugged him, shook hand firmly, eyes expressing how he was there! Slowly, I narrated my previous night's experience and disclosed my decision of leaving the place and the job. Saying that, that he had now come, we both would stay there for a day more and review the proposal to go back or not next day, and in the event of leaving the place for good, he would also join me. But, alas! that day never came, as I destined to continue at CMFRI!



Dr. C.S. Gopinadha Pillai

- Designation at retirement : Principal Scientist & Head FEM Division
- Period of service: 1964 - 1996

Remembering my Mandapam days

It is now more than four decades since I stepped into the corridors of CMFR Institute at its erstwhile HQ at Mandapam Camp, as a research scholar of the Ministry of Education, Govt. of India. When I look back at my career spanning more than thirty years, I have a nostalgic feeling of my tenure at this narrow strip of land in the midst of Palk Bay and Gulf of Mannar. The area was full of thorny bushes, venomous cobras and vipers as well as star tortoises. When I joined in 1964, Dr. Santhappan Jones was the Director. He was affected by polio and both legs were disabled. He moved around on a wheel chair. He was certainly a great visionary and a Karmayogi.

Life at Mandapam Camp at that time was difficult. Food was scarce, transport limited, medical facilities virtually nil, there was no school for children, not to speak of the non-availability of hygienic drinking water. My most unforgettable event at Mandapam Camp was the devastating

cyclone of December 1964 that took a toll of many lives including two of our staff.

Infrastructure for research was limited. Only officers were eligible for departmental vehicle for the field trip. The furniture included a table, a chair and a wooden rack. A fan was a luxury but essential in that hot climate. Sophisticated laboratory equipments were not available. A fish scale, a divider and a lens or binocular microscope satisfied a fishery scientist. A hand rotating calculator was used for processing the essential data. The cracking noise of typewriters often announced their presence.

Despite all these constraints work was worship to us. Absolute calmness prevailed in the campus during office time. Dr. Jones preached and practiced Niskama karma. Most of us work starts at day-break with strip to the field for collection of data or specimens. Our laboratory work often extended up to 9.30 PM. Considerable basic data on fishery biology, taxonomy of living resources, ecology and oceanography was assembled during early sixties and seventies and these information is still the foundation of marine research in this country.

I reckon that the golden moment in my career was when Dr. Jones asked me to convene an International symposium on corals and coral reefs under the auspices of the Marine Biological Association of India, purely because I worked under his guidance on the topic for my doctorate. I was reluctant at first due to my inexperience but he infused courage.

It is my pleasure and privilege to wish many golden moments for the present staff of CMFRI and hope that they will laurels to the country by the excellent work they are doing.



Dr.V.S.Krishna Murty Chennubhotla

- Designation at retirement : Principal Scientist
- Period of service : 1963-2000

The golden moments experienced

The Golden Moments during my service were spread over from the beginning to almost entire period as some thing significant had happened at one time or other in the span of 36 years & 10 months of my service. The first and foremost being my selection through UPSC, New Delhi as Asst.Research Officer in 1964 and posting to Cochin to work on the Phytoplankton of in shore & offshore waters that was collected on board the Research Vessel R.V."Varuna" of Indo-Norwegian Project. Which gave me an entirely a new experience in the beginning of my service. This was the first Golden Moment in my career and I owe this entirely to the then Director of CMFRI, (late) Dr.S.Jones.

The second Golden Moment was my registration for Ph.D degree of Calicut University and I owe this to Dr.S.Z.Qasim who gave constant guidance till I got the Doctorate degree, wherever he was whether in

CMFRI or NIO or Dept.of Ocean Development. For the encouragement I had received in completing & submission of my thesis, I owe to Dr.E.G.Silas who provided necessary help and suggestions whenever required.

The next Golden Moment was my transfer by (late) Dr.R.V.Nair to Mandapam Regional Centre from Calicut to work on Marine Algal Resources Survey i.e. a shift from micro algae to macro algae. This was the turning point in my career and I remember him for this timely action.

Dr.E.G.Silas gave lot of importance on the Marine Algal Cultivation, and gave guidance to me and my colleagues in carrying out culture operations. He nominated me as a Faculty Member for the P.G students of C.A.S. in Mariculture and as Project Leader for the project on Marine Algae. I was thus instrumental in preparation of Bulletin No.41 on "Economically important Seaweeds". He had deputed me for advanced training on Marine algal Cultivation in the University of Philippines under FAO/UNDP programme. His leadership has given a new impetus to the Mariculture Research as a whole in the Institute and we owe him a lot for this.

During the next five years when I was allotted senior Research Fellows to work on Ph.D programmes and also to initiate ICAR Ad Hoc scheme projects on Marine Algal Survey of Andaman Nicobar, Lakshadweep group of Islands and in the region between Visakhapatnam-Chilka lake regions initiating marine algal cultivation in lagoon waters of

Lakshadweep, especially Minicoy Island. I owe all this to vision and planning of the then Director Dr.P.S.B.R.James for this Golden Moment.

In the field cultivation of *Gracilaria edulis* (agarophyte), a 36 fold enhancement of growth in Minicoy Lagoon obtained was a record production and which was not registered any where else. This I ever remember as a Golden Moment in my life.

During 1993, The Marine Products Development Authority, Cochin has awarded Aquaculture Award to me in "Ind Aqua" in appreciation of the contribution made to Marine Algae This was one of the Golden Moment which I ever cherish very fondly.

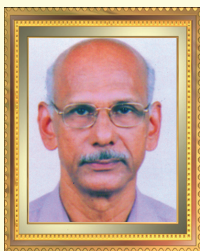
The greatest moment when I look back was when all the three Research Fellows who worked under my guidance were awarded their doctorate degrees. This gave me the utmost satisfaction and a sense of fulfillment of my responsibilities as a Research Guide.

My other Golden Moments include my participation as a Scientist and some times as a Chief Scientist on board FORV:"SagarSampada" in its scientific cruises. During my tenure as Officer in charge at Visakhapatnam Research Center of CMFRI, two significant achievements are worth mentioning which includes construction of Mariculture laboratories and Tissue Culture Laboratory for culture operations and construction of staff quarters. For this, the encouragement given to us and the dynamism shown by the then Director, Dr.M.Devaraj are commendable.

In the initial periods of my career the encouragement received from (late) Dr.R.P.Varma, Dr.R.R.Prasad and Dr.A.J. Daniel (ex ZSI) and in the later part of my service, the encouragement given by Dr.P.Vedavyasa Rao and Dr. V.Narayana Pillai are also worth mentioning and I always cherish all these memories through out my life.

Last but not the least, I wish to place on record the assistance and the help extended by the Library, Administrative & Accounts staff of the Institute during the service period and after wards also.

Finally, even after retirement I have some Golden Moments to cherish regarding the sanction of medical facilities to retired ICAR employees and the warmth with which the ICAR and the present Director Dr. Mohan Joseph Modayil remember the former employees by giving an opportunity to rejoice any happy occasion of the Institute which enables us to recall the Golden Moments which rejuvenate our energies. I take this opportunity to thank ICAR especially DDG (Fisheries) and the present Director of CMFRI, Dr.Mohan Joseph Modayil.



Dr. K.J. Mathew

- Designation at retirement : Principal Scientist
- Period of service : 1965 - 2000

The golden moments in my research career

I became a part of CMFRI on the 16th of September 1965 that was 18 years since the inception of the Institute and the Indian Independence. I can bring to the forefront of my memories a lot many moments both golden as well bitter during my research career. As there is no room for the bitter experiences in this commemorative compendium I leave them in the background for a noble burial.

The very first exciting moment rushing out of my memory is the day I arrived at CMFRI in Mandapam Camp for joining duty as Research Assistant. In such a remote place like Mandapam where not much of transportation facility was available in those days I had to journey from the railway station to the Institute by jhadka, a horse cart from which I made a royal landing in front of the Director's office. Everything was new to me - the campus, the hot dry climate, the people, the sandy soil, the fast

blowing sea breeze, the lullaby generated from the breaking surf at a distance, the shrill cry of the donkeys grazing outside the campus and even the vegetation! Wow! my mind got elevated to some inexplicable state.

Among several memorable occasions to remember during the three months training at Mandapam Camp are the wanderings along the shores of Vedalai, Marikarpattanam, Keelakarai, Mandapam, Pamban, Rameswaram etc in search of varieties of marine life in the catches of olavalai and karavalai for the sake of identification. At times I enjoyed helping the fisher folk in pulling their shore seines and after the successful fishing operations sharing with them the snacks they happily offered. My maiden sea trip by an INP (the erstwhile Indo-Norwegian Project) fishing boat in the Palk Bay remain fresh in my mind. The three months training at Mandapam passed like three days with a lot of field trips and in the company of books in the library which was the best of its kind in the southeast Asia.

My first posting was in Cochin. On the day of my departure from Mandapam Camp Dr. Jones, the Director while briefing me personally in his office told me "Mr. Mathew I am posting you to Cochin to work in the Marine Biology Division under Dr. Silas, an eminent scientist and a hard worker. You see, he is a person doing research not for the sake of money". I felt very happy at his words because to work with a person dedicated

cent percent to the cause of science would definitely be an exciting experience and I thought I would be greatly benefited by his knowledge and experience. I also felt fully confident about my future research career and I was eager to meet Dr. Silas at the earliest. But all my enthusiasm got evaporated in the evening of the same day when Mr. K.K.R. Kumar, the Administrative Officer cautioned me with a startling revelation about Dr. Silas. We were co-passengers in the train from Mandapam to Coimbatore. During our conversations he asked a question as to how I assessed Dr. Jones. " Sure he is a versatile personality having deep knowledge not only in science but also in philosophy, vedantha and many more things. He is a good administrator too but, sir, he appears to be a very hot person" was my answer. Suddenly Mr. Kumar interrupted me by telling "Mind you, if you say Dr. Jones is a hot person then Dr. Silas with whom you are going to work is ten times hotter than Dr. Jones!" and this I soon experienced in Cochin.

Even now I can remember only with increased heart beats those evenings' and late nights' (such were the times when Dr. Silas used to 'dissect' his research staff) marathon sessions I spent with Dr. Silas answering his never ending questions about the research project, progress in the work and collection of literature, explaining the works done, discussing further programmes etc. Geography was another weakness for him so that I had to keep an atlas within hands reach. At any moment a

question could be expected as to the location on a tiny island or a coastal place anywhere in the world. He wanted such a perfection in work that no one could satisfy him easily. He has a special eye for finding out mistakes and once found out one was sure to get bangs left and right. All those times I remembered the words of Mr. Kumar. I was totally dejected. Very often I blamed myself for my folly to have left the post of lecturer in a first grade college to join CMFRI just for being tortured!

Well soon the fear and hatred gave way to respect and admiration. I found him to be a treasure of knowledge. To work with him was really a blessing and a privilege. Also I recognized that the fury was just a mask on his face and it was all for refining the scientist in me. Soon I started getting benefited out of my marathon discussions with him. Later I really enjoyed spending time with him and now I owe him greatly for all my scientific achievements and contributions in marine science.

It was during one such nights when I was engaged in the analysis of some deep water plankton samples that I noticed under the binocular microscope a totally different euphausiid than what I had familiarized in the literature or in the samples I had examined. I became highly excited as my mind concluded it to be a new species. Straight I went to Dr. Silas' room and announced my discovery. He too became excited for the reason that there are hardly 100 species of euphausiids in the world. I showed him the specimen and logically proved its identity. For me, a novice in

research, hardly having a year's experience, the discovery was a golden moment. My maiden research paper was on *Stylocheiron indicum* Silas & Mathew 1967.

Among many things Dr. Silas taught me in research was that there should not be any classification of work among personnel in the field or in the laboratory and that a scientist should not be time conscious. I personally experienced these qualities in him in the laboratory, during the Varuna cruises and in many field trips with him. Such qualities imbibed from him were of great help throughout my research career especially during my Antarctic days.

I recollect here one interesting incident during one of my Varuna cruises with Dr. Silas. Usually a station would come once in three hours both day and night and we were expected to work at all the stations. There would be hardly one hour free time between two stations for personal needs including sleep. Such continuous work round the clock coupled with sea sickness and consequent starvation would make a person totally tired after a few days of the cruise. One day it so happened that after a mid night station I went to bed for a quick nap. In a moment I sank into deep sleep. Suddenly I heard a banging sound from the lower berth where Dr. Silas was lying "Get up Mathew, we are at station" to which I did not respond immediately. Next it was an outburst and the words came out were "What funny thing you are doing, you are sleeping in the mid night?"

Come on I say you attend to your duty" and he left the cabin. Such was his duty consciousness. (This training came to my help when I spent 36 sleepless hours in the Antarctic Ocean making hourly collections for a diurnal study without being assisted by anybody and when I spent another 36 hours in a country craft at the mud bank in Ambalapuzha during the peak monsoon period being protected by a rain-coat against the rain and an umbrella against the sun). But behind such a tough nature, I could sense a soft heart in him which probably most others are not aware of. I had a couple of occasions to feel the warmth of his soft heart.

It was during one of the monsoon cruises onboard Varuna with Dr. Silas as the leader. As usual I was severely sea sick but still attended to all my works partly out of fear and partly out of duty consciousness. I was tired too due to no intake of food. Anything consumed would come out in the next moment; such was the situation. Finally I was bed ridden and could not even get up. I thought I was dying. As I gradually slipped into a state of slumber I heard a soft voice asking me to get up. When I slowly opened my eyes I saw Dr. Silas standing in front of me with a bowl in his hand. He gently touched my shoulders and said "get up Mathew and have this 'kanji'". "No sir I can't take, I think I am dying" said I. "You see nobody has ever died out of sea sickness, you must drink it" he said again. I slowly got up and received the bowl from his hand but hesitated to drink. He further persuaded me by telling "Believe me, if you drink it

you will be fine from now". He also added "Unless you drink I am not leaving this place". I had no other option than drinking the kanji. The spirit and confidence he poured into my heart by his soothing touch and lovable words made me fit again and soon I was back at work. It was another golden moment in my career. Later I was a frequent voyager onboard Varuna and I totally recovered from sea sickness. The seasoning in Varuna greatly helped me during the Antarctica Expedition. When almost everybody from the Army, the Air Force and even the Navy fell sick I stood tough like a seasoned sailor.

The Institute had a project on the seed resources in the surf and estuaries of Kerala and Tamil Nadu headed by Dr. Silas. The Cochin team was led by me. We had to cover from Ponnani to Quilon. Altogether 40 stations were to be covered in seven days every month. For accuracy and authenticity of sampling we decided to do all sampling works by ourselves which meant 6-7 full-body baths every day. In the surf the collections were from almost neck deep water which was risky too. Such frequent sea baths and loitering along the beaches in the sun and the rains gifted me with an attack of pneumonia and I was hospitalized. Everything was uncertain. Visitors poured in. One morning when I was half sleep in the sick bed I heard a familiar voice asking my wife who was beside me almost weeping. "Is he sleeping"? It was Dr. Silas. She could only say "No". Then I sensed a soft touch on my chest and a few words. That healing touch and

soothing words gave me the cure which the medicines could not give me. I was experiencing yet another golden moment in my life. On that day I found the real 'man' in him.

Now I invite the readers to the Goan port where Finnepolaris the Antarctic bound ship was moored. It was on the evening of 3rd December 1983 when the full contingent of the Third Indian Antarctic Expedition was assembled on the ship's deck for bidding farewell to the motherland. Everybody was highly enthused. With the sun setting in the horizon the military band sang "Saare Jehan se acha, Hindusthan hamara" which filled everybody's heart with patriotism and pride. Yet another golden moment in my life! The following four months were full of activity and hard work. Looking back I am fully satisfied for what all I did in Antarctica which was more than what I had anticipated.

To list some of the memorable moments before, during and after the Expedition are the days I spent on the Himalayan glaciers at an altitude of 16,000 feet, the stormy sea, the first sight of an ice berg, the fully ice covered sea, the icy continent, the helicopter journeys, the sight of the penguins, the 24 hour sunshine, the crash of an helicopter, the storms of 200 km or more velocity and above all the personal meeting with the Prime Minister Mrs. Indira Gandhi after the Expedition.

Many more memorable moments remain fresh in my mind but narrating them all may make this treatment more elaborate which would

increase the job of the editor. I shall just mention a few important ones such as the conferring of Jawaharlal Nehru Award for outstanding research, the work on zooplankton of Sagar Sampada, the establishment of the museum in the Headquarters, the renovation of the library, the prawn farming and the Lab-to-Land Programme in Quilon, the conduct of the First Sagar Sampada Workshop and the publication of its proceedings, the editing of IJE, MFIS, Bulletins and Special Publications, the voyages in the Arabian Sea and the Bay of Bengal and the day of my retirement from CMFRI.

Recognizing my research work soon after my retirement the ICAR appointed me to the position of Emeritus Scientist which literally means Honourably Retired Scientist and it again gave me an opportunity to continue my research work. This I consider a golden feather on my cap.

Looking back I am fully satisfied as a scientist. The God-given opportunity to remain at one place throughout my official period may probably be one of the reasons for my successful research career. Thank God.



Dr. V. Sriramachandra Murty

- Designation at retirement : Head, Demersal Fisheries Division 1996-2003
- Joined CMFRI 23-09-1965

Days I cherish

Working in the CMFRI during September 1965 - January 2003, utilising the facilities and expertise was a matter of great pride and immense happiness to me as it is with this association that I derived utmost sense of satisfaction, happiness and achievement. The period of over 37 years I spent working in this mighty Institute, was full of professional successes and career failures - I often used to mention to my friends and some colleagues that "I am professionally very successful but a big failure in the career front". I know that I do not possess certain attributes required for career advancement being a frank, outright and outspoken person. Nevertheless, these failures in career advancement, for which I was never responsible, did not deter me from carrying out my researches to the best of my and the Institute's satisfaction. Hence I initially thought that I did not have any real "Golden Moments" during my career but a critical

rethinking and introspection revealed that I did indeed have such moments some of which deserve to be placed on record.

I first visited CMFRI Mandapam Camp as an undergraduate student and later as a postgraduate student. During my latter visit I had a close look at the laboratories and was impressed so much by the discipline and the working environment that I took an instant decision to join the Institute after completing my education. My father was keen on keeping me near my native place in Andhra Pradesh and therefore suggested to take up teaching in one of the degree colleges close by and indeed I had a couple of offers by then. He did not know of my interest in CMFRI; when he learnt that I was looking forward for a post for which even the advertisement was not released, he laughed at my 'foolish' hope. In about a fortnight, the advertisement from CMFRI appeared and my joy was boundless as I believed that I would get selected for one post and needless to say the wise men had a cynical and hearty laugh at my baseless optimism. After I reached Mandapam Camp to attend the interview, this optimism vanished totally as I learnt that the interviews were going on for three days and over sixty candidates mainly with marine biology degrees were being considered for only five posts. I felt that a simple Zoology degree holder like me could not dream of a posting in the Institute. The greatest happiness, however, was when I received the offer of appointment in two weeks of the interview. My father, elder brother and some of my friends were

pleasantly surprised on my dream coming true and heartily congratulated me and blessed me. Without losing time I proceeded to Mandapam Camp to join the CMFRI and never looked back as the Institute offered me the platform for achieving immense happiness, satisfaction and recognition, the continued frustrations in career advancement notwithstanding.

One day, in early 1967 when I was about one and a half years old in the CMFRI, Dr. Jones, the then Director asked me to prepare "Bibliography of Indian Ocean 1962-1967" within six months; he asked another four colleagues to assist me in this work. I did not know anything about this and was wondering why I was chosen for the task when there were a large number of senior and more efficient Officers in the Institute, but from almost the next moment, as was his usual practice, Dr. Jones was behind me enquiring 4-5 times a day about the progress and I was mortally afraid of telling him that I did not know how to proceed, for, I was aware that all the staff irrespective of their positions and seniority were similarly afraid of him and I dare not tell him of my predicament. Any how, I worked day and night and fulfilled the task successfully though not without heavy hammering every day at least twice. The golden moments were when the hard work resulted in a publication of the first bulletin of CMFRI and when Dr. Jones himself on seeing the copy of the publication, expressed his happiness to me and praised me in the presence of several distinguished and senior scientists. I will never forget those happy moments. What else

is required for an upcoming young scientist!

At the time of my joining at Cochin on transfer from Kakinada in early 1993, the Institute was busy preparing the document "Vision 2020" and several meetings were held and all the necessary material was collated and a draft document was ready. In early 1995 the Director told me that the DG ICAR was very unhappy with the Vision 2020 document of the Institute and asked me to take the responsibility of writing the same afresh as per the format. Though there was fear initially because I was still a very junior person in the hierarchy, I got over the same and spent all the time at my disposal to fulfill this task and started interacting with the Director on the subject. Finally when both of us were satisfied with the outcome, the document was finalised. Later, the ICAR asked the Director to make a presentation in a meeting attended by distinguished personalities in Fisheries. The Director asked me also to attend that meeting. The document received high appreciation from every one in the meeting and the Director told them pointing his finger towards me "he is the architect of this document; the credit should go to him." Ah, I was a very happy person indeed.

When aquaculture research was introduced in CMFRI in early 1970 every one was enamored with this and since then all the Directors gave highest priority and thrust to this area of research. There is no doubt that aquaculture as an alternate method of increasing production is important

but research in capture fisheries cannot be sidelined in view of the volume of production, size of the industry, livelihoods and economy. Sadly however, adequate attention was not paid to this area of research and also to those who were pursuing it. I would even say that this area of science was looked down upon. There was virtually no recognition that research in capture fisheries is essential for policy decisions on marine fisheries development and management. I was one of the very few scientists in the CMFRI who did not switch over to aquaculture research though attempts were made to 'push' me into this showing the "prospects" and a large number of "opportunities" for career advancement and so on. Though I continued in capture fisheries and have been putting arguments in its favour in different high level meetings, I have been nursing the pain for the total lack of appreciation and recognition for it. As a final attempt to get due recognition for this I submitted my work for the most coveted Rafi Ahmed Kidwai Award of the ICAR and ah, finally the work received the due recognition and the ICAR conferred the Award on me. This is the most cherished feeling of achievement for me in CMFRI.

Down Memory Lane - Addresses

Dr. E.G. Silas, Vice Chancellor (Retd.) 37, Ambady Retreet, Chilavannoor Road, KOCHI-682 020	Dr. P.S.B.R. James Former Director, CMFRI No. 832/27, 3rd B main, 2nd Cross Prem Nilvas Road St. Thomas Town P.O., BANGALORE-560 084.
Dr. M. Devaraj, (Retd. Director, CMFRI) Plot No. 5, 1 st Street, Venkatakrishna Nagar, Arumbakkam, CHENNAI-600 106.	Dr. V. Narayana Pillai, (Retd. Principal Scientist, CMFRI), H.No. 39/84 "Thriveeni" Nandakumar Lane Karikkamuri Cross Road, COCHIN-682 011.
Dr. M. Umamaheswara Rao, Retd. Professor, Andhra University, Plot No. 43, (MIG) Sector No. II, Mani Nilayam, M.V.P. Colony, VISAKHAPATNAM-530 017.	Dr. P.V. Ramachandran Nair, (Retd. Principal Scientist, CMFRI) 27, Girinagar North, KOCHI-682 020.

Shri K. Nagappan Nayar,
(Retd. Scientist, CMFRI),
No. 5, 2nd Street,
Seethanagar,
CHENNAI-600 034.

Shri S. Mahadevan,
(Retd. Principal Scientist, CMFRI)
37/10, Vinayaka Apartments,
IInd Main Road,
Gandhinagar, Adayar,
CHENNAI-600 020.

Dr. K. Alagaraja,
(Retd. Principal Scientist, CMFRI),
67, Mudanoor St.,
Rajapalayam-626 117
Tamil Nadu.

Dr. G. Luther,
(Retd. Principal Scientist, CMFRI),
MIG/II/103,
Door No. 2-22-16,
Sector-6, MVP Colony,

VISAKHAPATNAM.

Dr. P. Vedavyasa Rao,
(Retd. Principal Scientist, CMFRI)
Kaveri Compound,
House No. XVI/746-A,
Sanathanam Ward,
Thondankulangara,
ALLEPPEY.

Dr. C.S. Gopinadha Pillai,
Retired Principal Scientist,
CMFRI,
Sreesailam, Pramadom,
Mallassary P.O.,
PATHANAMTHITTA-689 646.

Dr. V.S. K. Chennubhotla,
(Retd. Principal Scientist, CMFRI),
Plot No. 597, Vaidehi Nagar,
Vanasthalipuram,
Hyderabad-530 070,
Andhra Pradesh.

Dr. K.J. Mathew,
(Retd. Sr. Scientist, CMFRI),
28/329(I), Abhilash,
Kadavanthara P.O.,
KOCHI-682 020

Dr. V. Sriramachandra Murty,
(Retd. Principal Scientist, CMFRI),
Flat No. B4, 320, Kendriya Vihar,
Yelahanka,
BANGALORE-560 064.

